

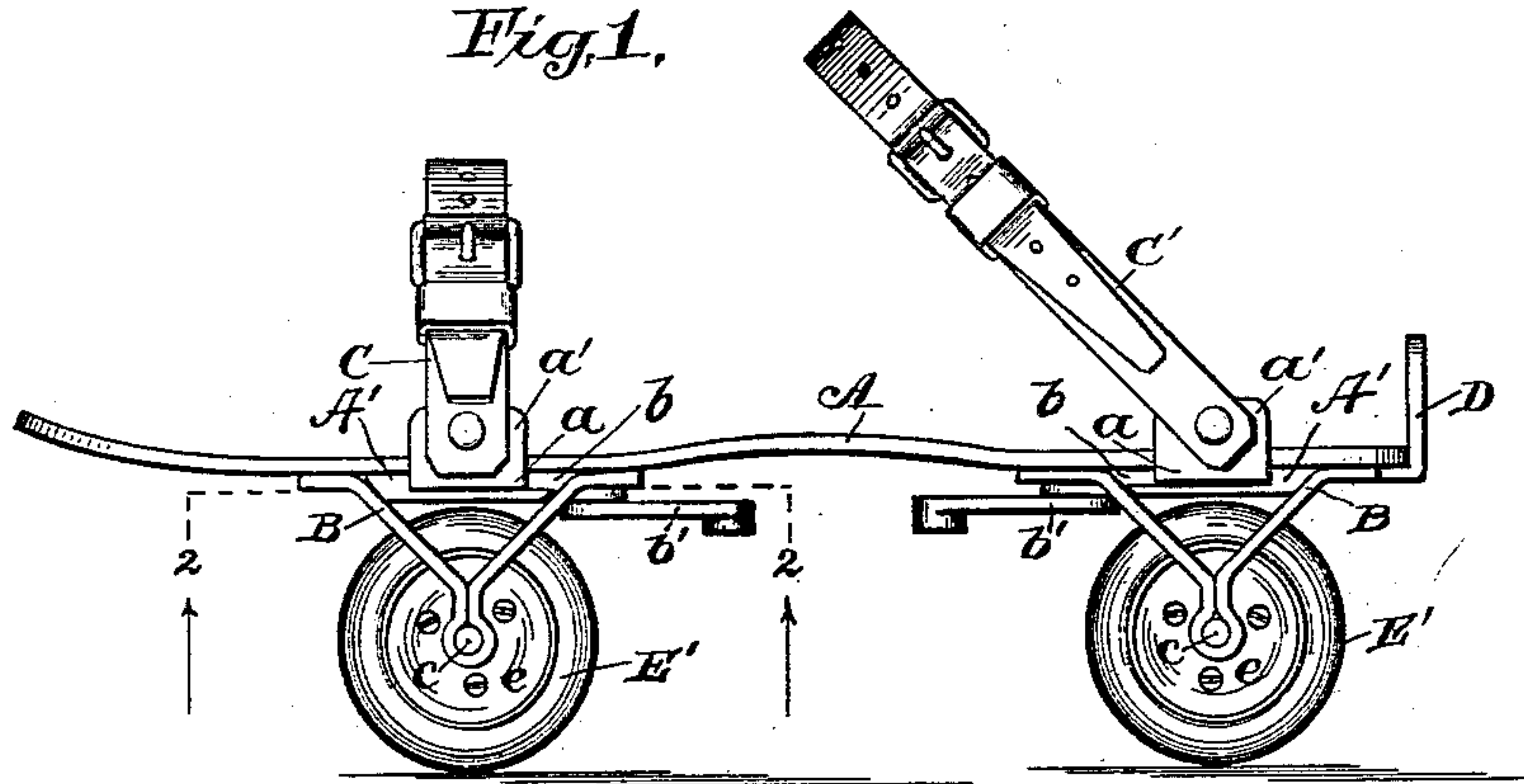
(No Model.)

J. F. BARTLETT.  
BICYCLE SKATE.

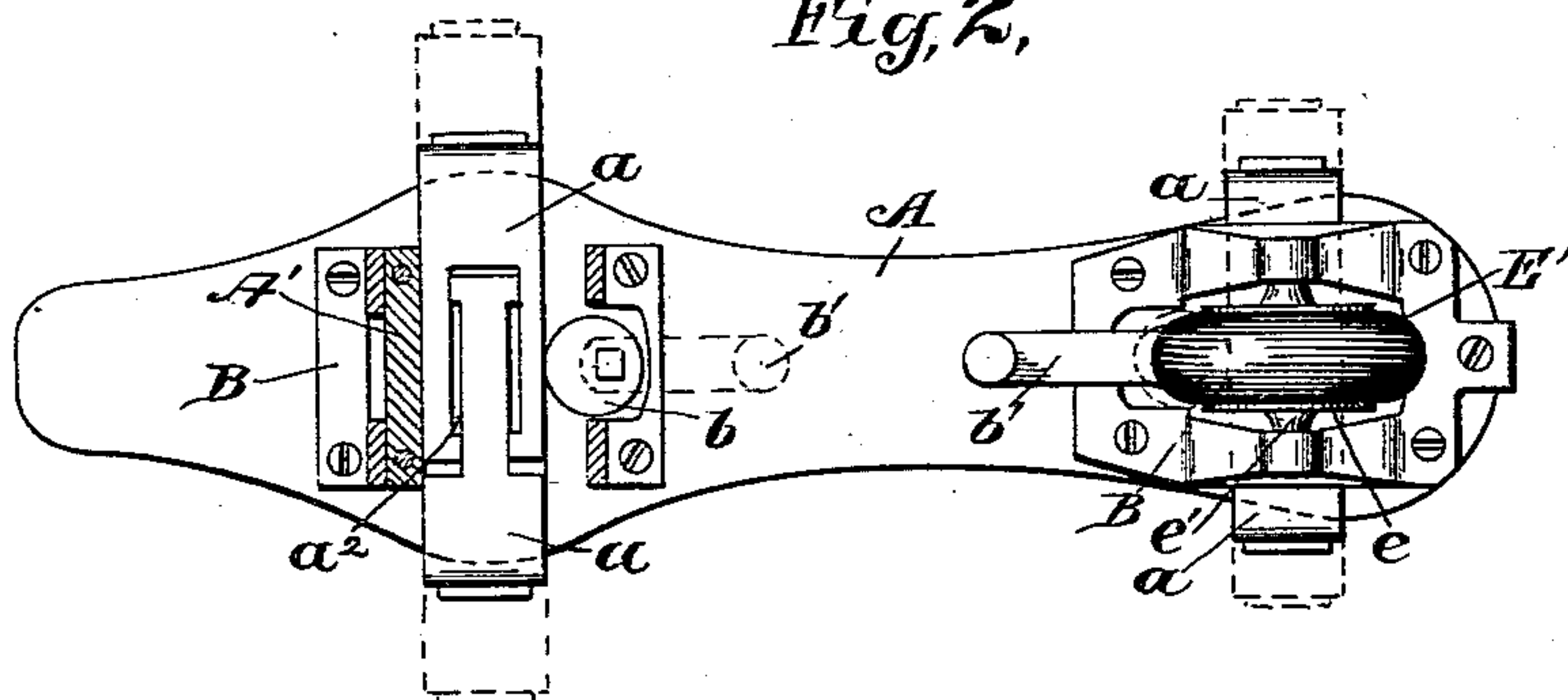
No. 560,151.

Patented May 12, 1896.

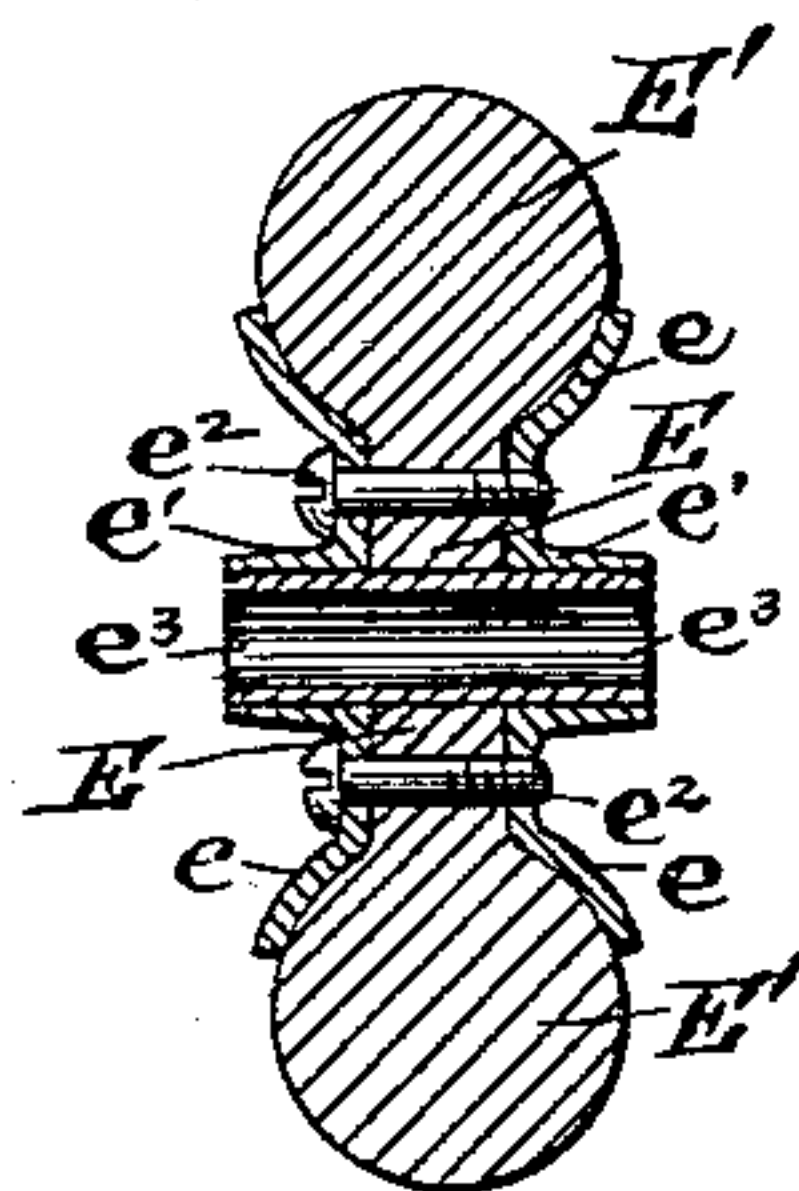
*Fig. 1,*



*Fig. 2,*



*Fig. 3,*



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# UNITED STATES PATENT OFFICE.

JAMES F. BARTLETT, OF CHICAGO, ILLINOIS.

## BICYCLE-SKATE.

SPECIFICATION forming part of Letters Patent No. 560,151, dated May 12, 1896.

Application filed October 24, 1894. Serial No. 526,790. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. BARTLETT, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Bicycle-Skates, of which the following is a specification.

My invention relates to bicycle-skates in which a pair of elastic rollers is supported in vertical plane with the axis of the sole-plate; and the object of my invention is to improve the devices for fastening the skates on. I attain this object by the means illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a skate embodying my improvements. Fig. 2 is a bottom view of the same, showing the roller-support and horizontal section, taken on the line 2 2 of Fig. 1. Fig. 3 is a detail showing a vertical central section of my improved elastic roller.

In the drawings, A designates a metallic plate shaped to fit the sole of the foot. Said plate is provided with transverse plates *a* at the ball of the foot and under the heel, each of the flanges *a'* projecting upwardly above the surface of the sole-plate A. One of said transverse plates *a* is provided with an open slot *a*<sup>2</sup>, having L projections at the end, and the other has a tongue with a T-head adapted to fit in said slot and slide back and forth therein, the T-head engaging the L projections of the other part to prevent the tongue from being pulled clear out of said slot. The purpose of these transverse plates is to provide means for extending the plate *a* under the ball and heel of the foot in order to adapt said plate to widths of different soles and to bring the flanges *a'* against the opposite edges thereof. The said transverse plates pass under the plate A and through keepers A' over the brackets B, which support the roller of the skate. The one edge of the slotted plate *a* impinges one of the side pieces of the keepers, and upon the opposite side there is an eccentric cam *b*, provided with a short lever *b'*, the cam being adapted to strike the other side of said slotted plate *a* when the lever is set, whereby said tongue may be clamped and set in any position in which it may be found desirable to set it within the length of said slot *a*<sup>2</sup>, and when the lever is reversed said tongue may be moved along said slot.

It is not the purpose of the flanges *a'* to so clamp the sole of the shoe as to hold the skate on in the usual manner. This I do by light leather or other flexible straps C and C', which are pivoted to the flanges *a'* and provided with buckles, whereby they may be tightened upon the foot. I also provide a heel-flange D, which is adapted to strike against the heel of the shoe and prevent any backward slipping or displacement of the skate on the shoe. The said flanges *a'*, while not clamping the edges of the sole sufficiently to hold the skate on, are sufficiently fixed in position by the eccentric cam to prevent any side or lateral displacement of the skate on the shoe, and the position of the strap C', passing over the instep, will prevent any forward displacement. This means of attaching the skate to the shoe secures a very comfortable attachment, which is easy to the wearer and not injurious to the shoe.

The elastic roller is made of a rubber disk E, having a thin central portion provided with a central perforation and its periphery thickened, so as to form a wide and preferably circular tread E'. Upon each side of the disk I provide a plate *e*, whose interior surface is adapted to fit against the rubber disk around the central perforation and being flared out at the periphery to partially cover the thickened part near the periphery of the disk. Said plates are centrally perforated and provided with an outer projection forming the hub *e'*. They are secured to the rubber disk by means of screws *e*<sup>2</sup>, which pass through perforations in the thin portion of the disk and engage the plates, so as to draw them together and clamp them firmly upon the disk. A bushing *e*<sup>3</sup> is applied in the perforation of the plates *e'*, extending through the perforation of the elastic disk and forming a suitable bearing for the axles of the spindle *c*, which carries the roller. By this construction a roller is provided which is elastic from its central perforation to its periphery and which affords greater yielding capacity than can be otherwise secured. The plates *e*, connected in the manner shown, form a rigid central exterior support, which makes the roller capable of sustaining any lateral strain to which a solid metallic roller would be equal, and the central part of the



disk, clamped and secured between said plates, affords means for holding the broadened part E', which may be likened to an elastic tire on a rigid wheel, firmly in the groove of such wheel, so that the tire cannot be displaced from its seat in such wheel by any lateral strain to which it may be subjected. It would not be possible otherwise to furnish a small roller designed to sustain considerable weight and to be subjected to lateral strain with an elastic tire which would stay in place.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

15 A bicycle-skate comprising a sole-plate provided with roller-brackets, an elastic roller journaled in each of the roller-brackets in vertical plane with the axis of the sole-plate, toe and heel clamps made of plates connected

by a slot in one and a tongue on the other adapted to slide together with an eccentric clamp and a lever whereby the clamp may be set upon the tongue to hold it fixed in any position in the slot, said plates being supported beneath and arranged transversely to the sole-plate and provided with flanges projecting above the sole-plate, flexible straps pivoted to the toe-clamps and adapted to close over the toe, flexible straps pivoted to the heel-clamps and adapted to close over the instep and a heel-flange projecting upward from the rear edge of the sole-plate as specified.

JAMES F. BARTLETT.

Witnesses:

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